

Part II

Site-Specific Objectives Task Force Report

SITE SPECIFIC OBJECTIVES TASK FORCE

FACILI-TATOR	KATHY EHNEBUSKE AZELEA MEDIATION GROUP 1339 AZALEA AVE MCKINLEYVILLE, CA 95521 PHONE: (707) 839-4612 FAX: (800) 448-8761	
INTEREST CATEGORY	MEMBER	ALTERNATE
POTW	ROBERTA LARSON CALIFORNIA ASSOC. OF SANITATION AGENCIES 925 L ST, STE 1400 SACRAMENTO, CA 95814 PHONE: (916) 446-0388 FAX: (916) 448-4808	RODNEY W. CRUZE RIVERSIDE PUBLIC WORKS DEPARTMENT 5950 ACORN ST RIVERSIDE, CA 92504 PHONE: (909) 351-6011 FAX: (909) 687-6978
STORM-WATER	DAVE BRENT CITY OF SACRAMENTO, DEPT. OF UTILITIES 5770 FREEPORT BLVD, STE 100 SACRAMENTO, CA 95822 PHONE: (916) 433-6634 FAX: (916) 433-6652	ALICE TULLOCH CITY OF MODESTO P.O. BOX 642 MODESTO, CA 95353 PHONE: (209) 577-5470 FAX: (209) 525-9311
INDUSTRY	STEPHEN HANSEN S.R. HANSEN & ASSOCIATES 4085 NELSON AVE, STE 1 CONCORD, CA 94520 PHONE: (510) 687-5400 FAX: (510) 687-2296	LARRY SMITH PORT OF LOS ANGELES P.O. BOX 151 SAN PEDRO, CA 90733-0151 PHONE: (310) 732-3914 FAX: (310) 547-4643
AGRI-CULTURE	BERNOY BRADFORD BIGGS-WEST GRIDLEY WATER DISTRICT 1713 W BIGGS-GRIDLEY RD GRIDLEY, CA 95948 PHONE: (916) 846-3317 FAX: (916) 846-5737	MERLIN L. FAGAN CALIFORNIA FARM BUREAU FEDERATION 1127 11TH ST, STE 626 SACRAMENTO, CA 95814 PHONE: (916) 446-4647 FAX: (916) 446-1391
WATER SUPPLY	BERNARD C. KERSEY SAN BERNARDINO MUNICIPALWATER DEPT. P.O. BOX 710 SAN BERNARDINO, CA 92402 PHONE: (909) 384-5091 FAX: (909) 384-5215	DAVID L. TUCKER SAN JOSE ENVIRONMENTAL SERVICES DEPT. 700 LOS ESTEROS RD SAN JOSE, CA 95134 PHONE: (408) 945-5359 FAX: (408) 945-5442
ENVIRON-MENTAL	FRANK PEREIRA ENVIRONMENTAL ALLIANCE 6040 ALHAMBRA VALLEY RD MARTINEZ, CA 94553 PHONE: (510) 228-0122 FAX: (510) 228-6867	MARIO MENESINI ENVIRONMENTAL ALLIANCE 2406 CASCADE DR WALNUT CREEK, CA 94598 PHONE: (510) 935-1168 FAX: (510) 676-7211
PUBLIC HEALTH	GARY STEPHANY CA CONF. OF DIRECTORS OF ENV. HEALTH P.O. BOX 85261 SAN DIEGO, CA 92186-5261 PHONE: (619) 338-2211 FAX: (619) 338-2174	NO ALTERNATE PROPOSED
U.S. EPA	ALYDDA MANGELSDORF U.S. EPA REGION 9, W-5-1 75 HAWTHORNE ST SAN FRANCISCO, CA 94105 PHONE: (415) 744-2015 FAX: (415) 744-1078	MARIA REA U.S. EPA REGION 9, W-3-1 75 HAWTHORNE ST SAN FRANCISCO, CA 94105 PHONE: (415) 744-2005 FAX: (415) 744-1078
FISH & WILDLIFE	DEBORAH JOHNSTON DEPARTMENT OF FISH AND GAME 20 LOWER RAGSDALE DR, STE 100 MONTEREY, CA 93940 PHONE: (408) 649-7141 FAX: (408) 649-2894	DAN WELSH U.S. FISH & WILDLIFE SERVICE 2800 COTTAGE WY, E-1803 SACRAMENTO, CA 95825 PHONE: (916) 979-2110 FAX: (916) 979-2128
REGIONAL BOARDS	CECILE MORRIS RWQCB - NORTH COAST 5550 SKYLINE BLVD, STE A SANTA ROSA, CA 95403 PHONE: (707) 576-2662 FAX: (707) 523-0135	NO ALTERNATE PROPOSED
STATE BOARD	STEPHANIE ROSE SWRCB - FRESHWATER STANDARDS UNIT P.O. BOX 944213, 901 P ST SACRAMENTO, CA 94244-2130 PHONE: (916) 654-0529 FAX: (916) 657-2388	GAIL L. LINCK SWRCB - FRESHWATER STANDARDS UNIT P.O. BOX 944213, 901 P ST SACRAMENTO, CA 94244-2130 PHONE: (916) 657-2188 FAX: (916) 657-2388

Interest Category	Name	April-25	April-26	May-08	June-12	July-10	August-14	September-11
POTW	M Roberta Larson							
POTW	A Rodney W. Cruze							
Stormwater	M Dave Brent							
Stormwater	A Alice Tulloch							
Industry	M Stephen Hansen							
Industry	A Larry Smith							
Agriculture	M Bernoy Bradford							
Agriculture	A Merlin L. Fagan							
Water Supply	M Bernard C. Kersy							
Water Supply	A David L. Tucker							
Environmental	M Frank Periera							
Environmental	A Mario Menesini							
Public Health	M Gary Stephany							
US EPA	M Adrian Palomino				**			
US EPA	M Alydda Mangelsdorf							
US EPA	A Maria Rea							
Fish & Wildlife	M Deborah Johnston							
Fish & Wildlife	A Dan Welsh							
Regional Bds.	M Cecile Morris/Bill Winchester							
State Board	M Stephanie Rose							
State Board	A David C. Carlson					***		
State Board	A Gail Linck							
								* Leslie Higgins attended for EPA on 5/8
	M=Member							** Alydda Mangelsdorf is now EPA representative
	A=Alternate							*** Gail Linck is now State Board Alternate

**To: John Caffrey, Chair and Members
State Water Resources Control Board**
From: Site Specific Objectives Task Force
Subject: Recommendations of the Site Specific Objectives Task Force
Date: November 1, 1995

The members of the Site Specific Objectives Task Force are pleased to submit our recommendations to the State Water Resources Control Board. The four documents produced by our task force are presented to you as consensus proposals with which all stakeholder representatives were able to agree. We hope your Board will give serious consideration to the following recommendations:

Draft Language for Inclusion in Statewide Plans:

The task force recognizes the importance of site specific objectives (SSOs) to the water quality plans. Therefore, the task force drafted proposed plan language which provides the framework for development of SSOs. The key element of the plan language is a requirement that, for each SSO study, the regional board enter into a Memorandum of Understanding with interested parties which outlines the budget and cost-sharing plan, the responsibilities of the parties, study work plan, etc. The language also provides a mechanism for separating technical and policy decisions and addresses establishment of permit limits during the time SSOs are being developed.

Decision Tree

While the task force agrees that SSOs should be an integral part of the revised plans, we recognize that other regulatory options may be appropriate in some cases. The Decision Tree and supporting narrative discussion are intended to encourage constructive dialogue among stakeholders attempting to select the most appropriate regulatory option (e.g. Total Maximum Daily Load, Use Attainability Analysis, SSO, or permit relief). The decision tree is designed to guide users through a series of questions which may help to determine: 1) if there is a current or potential water quality issue requiring action; 2) the nature of the identified water quality issue; 3) the most likely regulatory action. The decision tree is intended for guidance only--it is not intended as a prescriptive regulatory tool.

Guidance Outline

The plan language provides only the broad policy outlines which should govern development of SSOs. However, a regional board will need additional guidance in order to conduct SSO studies. Therefore, the task force recommends that the State Board staff be directed to develop a "cookbook" style guidance document to guide the regional boards through the process. A detailed guidance document was beyond the time and resources of the task force; instead, we have provided an outline of what we believe should be included.

Anti-Degradation Policy

In the course of its discussions, the task force became concerned about the potential impacts of the State's anti-degradation policy on the ability to develop and implement SSOs. As a result, the task force recommends that the State Board develop a guidance document to address issues related to the anti-degradation policy, and we have identified a number of the issues we believe need to be considered.

Thank you for the opportunity to participate in the task force process. We are proud of our accomplishments and hope that our recommendations are valuable to the Board in re-drafting the statewide plans.

SITE SPECIFIC OBJECTIVES TASK FORCE PROPOSED LANGUAGE FOR STATEWIDE WATER QUALITY PLANS

1. Water quality objectives shall be developed in a manner consistent with the Clean Water Act and the Porter-Cologne Act. In accordance with State law, objectives must provide for the reasonable protection of beneficial uses based on consideration of the factors listed in §13241 of the Porter-Cologne Act. In accordance with federal law and regulations, the objectives must be based on sound scientific rationale and protect the designated beneficial uses of the receiving water.
2. The Regional Water Quality Control Board (Regional Board) may develop site specific objectives whenever it determines, in the exercise of its professional judgment, that it is appropriate to do so. Under certain circumstances, other approaches to achieve the statewide objective may be more appropriate than development of a Site Specific Objective (SSO). These approaches include, but are not limited to, use-attainability analyses and development of total maximum daily loads/wasteload allocations. The Regional Board may investigate and implement other approaches as appropriate in the circumstances.
3. Regardless of action taken by the Regional Board pursuant to number 2 above, the Regional Board shall initiate the development of SSOs if:¹
 - (a) a written request for a site-specific study, accompanied by a preliminary commitment to fund the study, subject to development of a Memorandum of Understanding (MOU), is filed with the Regional Board, and:
 - (b) Either:
 - (i) an existing or potential statewide objective or beneficial use is not achieved in the receiving waters;
 - OR
 - (ii) a holder of waste discharge requirements, including an NPDES permittee, does not or may not in the future meet an existing or potential effluent limit based on the statewide objective and cannot be assured of achieving the effluent limit through reasonably achievable pollution prevention measures.
4. In the event there are insufficient data to make the determinations outlined in 3 (b) and there is reasonable likelihood that one or all of these conditions may exist, the source control, effluent, and receiving water data necessary to make these determinations may be collected. The Regional Board shall amend the waste discharge requirements and/or permits in accordance with the relevant compliance schedule provision in the Statewide Water Quality Control Plan

(Plan) if necessary to allow a reasonable time period to collect and analyze the data and report the results.

5. Prior to proceeding with site-specific objectives studies, the Regional Board shall enter into an MOU with interested parties, including, but not limited to, U.S. EPA Region IX, the State Water Quality Control Board (State Board), and the affected dischargers. The MOU shall include the following elements:

- (a) Formation of a project team, including the signatories to the MOU, the State Department of Fish and Game, the U.S. Fish and Wildlife Service, and public interest groups.
- (b) Responsibilities of the parties.
- (c) Budget and cost-sharing plan.
- (d) Administrative policies and procedures to govern oversight of the SSO process.
- (e) Project schedule.
- (f) A process for conflict resolution.
- (g) Development of an SSO work plan.

6. SSOs shall be developed as follows:

- (a) The Regional Board shall utilize guidance to be developed by the State Board to establish one or more scientifically defensible potential objective(s). The scientifically defensible potential objective(s) shall be derived using methods appropriate to the situation. Such methods may include U.S. E. P.A. approved methods, including, but not limited to, Water Effects Ratio (WER) procedure, recalculation procedures, a combination of recalculation and WER procedures, Resident Species Procedure, and/or other methods agreed to by the parties to the MOU. The State Board shall periodically review and update this guidance as new information and methodologies, including a risk-based framework for water quality criteria currently being developed by U.S. E.P.A., become available. In the absence of guidance, these concepts would be incorporated into the MOU.
- (b) If, during the data interpretation phase of technical site-specific studies, the Regional Board, State Board, EPA Region IX, and/or other interested parties have differing opinions with regard to the interpretation of data collected in establishing the scientifically defensible potential objective(s), the Regional Board shall seek the advice of an independent scientific review panel consisting of at least three scientists with expertise in the field of aquatic toxicology and water quality criteria development methodology. The method of selecting the panel and other details regarding the conflict resolution process shall be included in the MOU. The findings of the scientific review panel shall be provided to the parties to the MOU, and made available to the members of the Regional Board in the event a scientific dispute remains unresolved at

the time the scientifically defensible potential objective(s) is presented to the Regional Board for consideration.

- (c) Following completion of the scientific studies and data interpretation, the Regional Board staff shall present to the Regional Board scientifically defensible potential objective(s). The Regional Board shall consider the following factors in adopting an SSO(s):
- (i) the beneficial uses of the water body;
 - (ii) environmental characteristics of the water body;
 - (iii) water quality conditions that can reasonably be achieved through coordinated control of all pollutant sources;
 - (iv) economic considerations;
 - (v) the need for housing in the region;
 - (vi) the need to develop and use recycled water.

To ensure that economic and environmental impacts are adequately addressed, the Regional Board staff shall, as part of the SSO work plan:

- (i) Direct the preparation of an economic analysis documenting the economic impacts from one or more of the scientifically defensible potential objective(s) and the projected effluent limits derived from the objective(s) and present the economic analysis to the Regional Board;
 - (ii) Comply with the California Environmental Quality Act.
- (d) If attainment of the potential objective(s) is anticipated to be infeasible (as defined in 40 CFR 131), or if the Regional Board otherwise determines it is appropriate, the Regional Board shall conduct use attainability analyses in accordance with 40 CFR 131. If such analyses conclude that attainment of the designated beneficial uses is infeasible, the Regional Board shall designate alternative beneficial uses or subcategories of beneficial uses and develop appropriate water quality objectives to protect those beneficial uses.

7. During the period when site-specific objectives studies are being conducted, the Regional Board shall place effluent limits based upon the statewide water quality objectives into NPDES permits and waste discharge requirements only in conjunction with an appropriate compliance schedule. The compliance schedule shall allow sufficient time for collection of data, completion of SSO studies, and determination of compliance measures. While SSO studies are being conducted, interim effluent limits may be established by the Regional Board as provided in the Plan. Following final adoption of a site-specific objective, existing effluent limits shall be replaced with effluent limits consistent with the adopted site-specific objective. In the event that, for reasons beyond the control of the permittee, a decision whether or not to adopt site specific objectives has not been made before the end of the compliance schedule, the compliance schedule shall be extended for an additional period to allow time for a decision whether or not to adopt an SSO. However, in no event may a compliance schedule exceed

the time period allowed for compliance with the statewide water quality objectives in the Plan, unless a variance has been granted.

8. A site specific objective may include a compliance schedule.

1. The language recommended for paragraph 3 by the Regional Boards is:

3. Regardless of action taken by the Regional Board pursuant to number 2 above, the Regional Board shall *at a public meeting, consider* initiating the development of SSOs if: *(the rest of paragraph 3 remains the same).*

Reason for change:

The Regional Boards are concerned that they may be required (forced) to do an SSO when it may not be appropriate.

Statement in Support of Proposed Plan Language Establishing "Triggers" for Proceeding with Site Specific Objectives Studies:

The proposed plan language establishing "triggers" for conducting site specific objectives (SSOs) was agreed to by 10 of the 11 stakeholder representatives. The regional board representative proposed alternative language allowing the regional boards complete discretion over when to proceed with site specific objectives.

We believe that, in many instances, it is appropriate to allow the regional board discretion in deciding when to conduct site specific studies, and paragraph 2 of the proposed language reflects this. However, in some cases dischargers must have the certainty of knowing that the studies will be done, especially since there is wide agreement that SSOs must be an integral part of the revised water quality plans. SSO development provides the regional boards with a viable option of addressing economic and environmental impacts on a water body by water body basis. Under the old plans, the opportunity to develop SSOs was presented as one answer to attainability problems faced by dischargers. The inclusion of narrow and reasonable triggers helps assure that SSOs will be developed where needed and that the regional board will play an active role in the process.

The regional board representative has indicated concern that the regional boards will be inundated with requests to perform SSO studies. We believe, on the contrary, several factors significantly limit the number of instances statewide in which a regional board would be required to proceed with SSOs:

- One of two triggers must be satisfied: either a water quality objective is exceeded in the receiving water or a permittee cannot meet an effluent limit.
- The requestor must agree to fund the studies, which represents a significant resource commitment.

- Concerns regarding the responsibilities of parties and resource constraints can be resolved during the development of the memorandum of understanding that will govern the SSO development.

- The Effluent Dependent Water bodies Task Force and the Agricultural Waters Task Force are recommending the establishment of categorical water quality objectives for special types of waters. If the State Board accepts their recommendations, the demand for water body specific objectives will be greatly reduced.

In short, the proposed plan language strikes the proper balance between regional board discretion and the dischargers' need for certainty that SSO studies will be undertaken where needed.

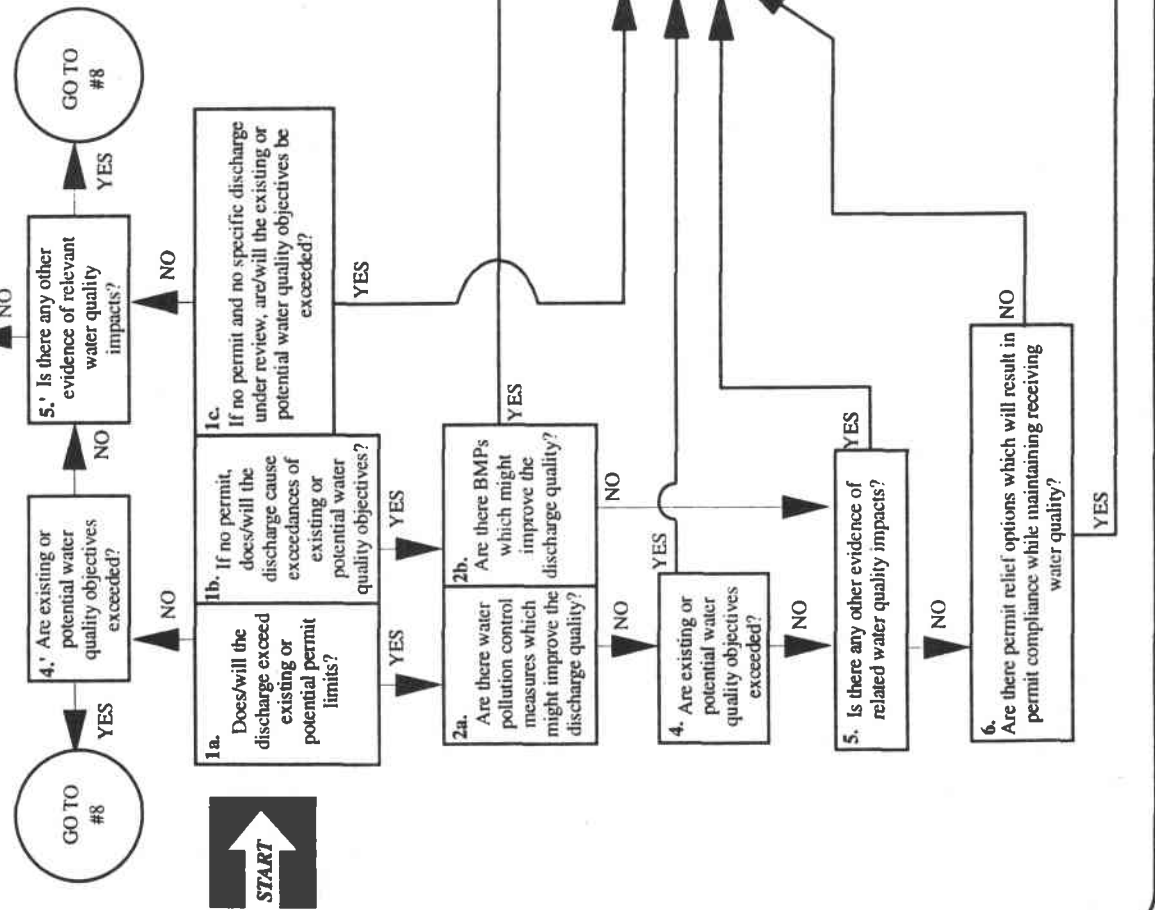
Pre-Evaluation for a Site Specific Study:
Decision Tree with attached Narrative Discussion

Potential Options

Screening-level Evaluation

Compliance Status

COMPLIANCE



SITE SPECIFIC OBJECTIVES TASK FORCE DECISION TREE NARRATIVE DISCUSSION

GENERAL DISCUSSION:

The decision tree and associated narrative discussion are not designed as a prescriptive regulatory tool; but, they are meant to encourage constructive dialogue among stakeholders. The decision tree is designed to guide users through a thought process which may help to determine: 1) if there is a current or potential water quality issue requiring regulatory attention [COMPLIANCE STATUS]; 2) the nature of the identified water quality issue [SCREENING-LEVEL EVALUATION]; and 3) the most likely, appropriate regulatory option [POTENTIAL OPTIONS]. This decision tree is not meant to preclude the exploration of any other set of potential creative regulatory solutions. It is meant as guidance only.

The decision tree is specifically meant to provide a framework for conducting a pre-evaluation from which to determine the scope of any further study, whether it be a Total Maximum Daily Load analysis, Site Specific Objective study, or Use Attainability Analysis. It is meant to help avoid initiation of costly and time consuming studies which are not appropriately designed to resolve the specific issue in question.

As another important note, it is generally the case that Site Specific Objective (SSO) studies have been initiated to address a situation where state-wide or basin-wide objectives appear to be over protective for a given water body. While this decision tree attempts to address such a situation, it also attempts to address a situation where either state-wide objectives for a pollutant of concern do not exist (e.g., sediment) or the objectives appear to be under protective for a given water body.

Further, the decision tree begins with questions regarding a known discharge--point or non-point source--since it is generally the case that site specific objectives will be developed in the context of known discharges. The decision tree also provides guidance, however, even in the absence of known discharges. In particular, questions #4' and #5' should lead a user to an appropriate outcome.

Finally, two specific considerations should be kept in mind when conducting the pre-evaluation suggested by this decision tree. First, a user must be familiar with the quality of the data under review and the potential need to augment data which is not of adequate quality. And second, a user should know what the existing uses are (i.e., uses attained since 1975).

SPECIFIC DISCUSSION:

- 1a. Does/will the discharge exceed existing or potential permit limits? This question applies to discharges regulated by a National Pollutant Discharge Elimination System (NPDES) permit or Waste Discharge Requirement (WDR). If the discharge in question is not regulated by a discharge permit, proceed to #1b. It is assumed that data used to answer this question are reliable.
- 1b. If no permit, does the discharge cause exceedances of existing or potential water quality objectives? This question primarily applies to non-point discharges, though could conceivably apply to point source discharges which are not currently permitted (e.g., percolation ponds which discharge sporadically during storm events). It is assumed that data used to answer this question are reliable.
- 1c. If no permit and no specific discharge are under review, are the existing or potential water quality objectives exceeded? It is assumed that data used to answer this question are reliable.
- 2a. Are there water pollution control measures which might improve the water quality? A water pollution control program should include, as appropriate: pollution control technologies; pretreatment requirements; and pollution prevention, waste minimization, and source control measures. This question is meant to elicit consideration of effluent quality control measures which could be implemented as a full or partial solution to the identified permit noncompliance issue. It is not intended as a barrier to the exploration of other potential forms of regulatory adjustment.
- 2b. Are there Best Management Practices (BMP) which might improve water quality? Best Management Practices are pollution management measures designed to reduce the water quality impacts, where they exist, associated with non-point sources discharges. As with #2a above, this question is meant to elicit consideration of discharge control measures which could be implemented as a full or partial solution to the identified noncompliance issue. It is not intended as a barrier to the exploration of other potential forms of regulatory adjustment.
3. Consider whether implementation of water pollution control measures and/or BMPs will lead to compliance. Simultaneously continue to #4 if deemed appropriate, considering such questions as whether or not full compliance will be achieved by these means, or whether it would be cost effective. As stated, the simple determination that implementation of pollution control measures and/or BMPs might improve the discharge or water quality should not preclude a discharger from exploring other potential regulatory adjustment options, as well. For clarity, the reviewer should proceed not to box #4', but to box #4.

4. Are existing or potential water quality objectives exceeded? It is assumed that data used to answer this question are reliable and appropriate hardness adjustments have been made.
5. Is there any other evidence of relevant water quality impacts? This question is meant to capture those situations, as discussed above, where either water quality objectives for the pollutant of concern do not exist or appear to be under protective. "Other evidence" might include: bioconcentration or biocriteria data, population studies, food web analyses, etc. Impacts to wildlife should be considered as should impacts to threatened and endangered species. The potential for impacts to be of a seasonal nature should also be considered in this pre-evaluation. "Relevant water quality impacts" are those impacts which have a demonstrable relationship to the pollutant(s) of concern.
6. Are there permit relief options which will result in permit compliance while maintaining receiving water quality? Permit relief options might include, where appropriate: development of a mixing zone, modification of the averaging periods, adoption of a variance, etc. For unpermitted discharges or pre-evaluations involving no specific discharges, the user should continue to box #8.
7. Implement permit relief options. Continue to #8 if full compliance will not be achieved by these means. The development of permit relief options would occur through a request to the Regional Water Quality Control Board.
8. Are both beneficial uses and water quality objectives appropriate for the water body? To answer this question, a screening-level evaluation may be necessary, including an evaluation of the associated regulatory history; the site specific conditions; and the status of current, applicable scientific understanding. It is assumed that data used to answer this question are reliable.

Further, it is assumed that this question is best answered when a watershed stakeholder group has formed and collectively either: 1) evaluated the condition of the watershed through a watershed management plan, 2) evaluated the condition of the watershed through less formal means, or 3) convened discussions regarding the condition of the watershed. If one does not currently exist, a watershed stakeholder group should be formed for the purpose of developing site specific objectives if it appears to be a useful forum for discussion and review. The following more specific questions may apply:

- * Is the water a unique water (i.e., effluent dominated, agricultural drainage water dominated, intermittent flow, etc)? While not the only candidates, water bodies with such unique characteristics are likely candidates for the appropriate application of regulatory adjustments (e.g., SSO or UAA). The Inland Surface Water Plan and Enclosed Bays and Estuaries Plan will provide further guidance on methods appropriate for addressing the unique characteristics of these kinds of water bodies.

- * Were the current beneficial uses applied on a national, state-wide, or region-wide basis or have they been specifically designated for the water body in question? While not the only candidates, water bodies for which beneficial uses have been applied on a national, state-wide, or region-wide basis are likely candidates for the appropriate application of regulatory adjustments (e.g., SSO).
- * Are there unique, threatened or endangered species, or ecological conditions which the currently applied beneficial uses do not adequately describe or the water quality objectives do not fully protect?
- * Has the beneficial use and the water quality necessary to maintain the beneficial use been attained since 1975?
- * How do anti-degradation requirements apply?
- * Are elevated constituents the result of 1) natural phenomena or 2) anthropogenic activities ceased prior to 1975?
- * Do the currently designated beneficial uses protect all existing and appropriate potential uses?
- * Are natural, ephemeral, intermittent or low flow conditions or water levels preventing the attainment of the designated non-existing uses?
- * Are there human caused conditions or sources of pollution which prevent attainment of the uses but either cannot be remedied or would cause greater environmental damage if corrected?
- * Does the presence of dams, diversion or other types of hydrologic modifications preclude the attainment of designated non-existing beneficial uses?
- * Do the physical conditions of the water body preclude attainment of aquatic life protection uses (i.e., lack of proper substrate, cover, flow, depth, pools, riffles, and the like)?
- * Does attainment of designated beneficial uses require the application of controls more stringent than those otherwise required by law and regulation? Would such controls result in substantial and widespread economic and social impact?
- * Have the appropriate water characteristics (e.g., hardness, pH) been accounted for in the current water quality objectives?
- * Has an appropriate set of species been evaluated in setting the water quality objectives?

9. Conduct a Total Maximum Daily Load analysis and implement the results. Conducting a TMDL could result in, among other things, waste load allocations, BMP implementation for non-point dischargers, and/or effluent trading options for point and non-point source dischargers. U.S. EPA's "Guidance for Water Quality-based Decisions: The TMDL Process" dated 1991 (EPA 440/4-91-001) provides guidance for conducting an TMDL. U.S. EPA's "Water Quality Standards Handbook" dated 1994 also provides general guidance in this area.
10. Are beneficial uses appropriate but not water quality objectives?
See #8 above.
11. Conduct a Site Specific Objectives analysis and implement the results. An SSO study will include one or more of the following activities:
 - * recalculation of objective
 - * water effects ratio or other similar method
 - * any scientifically defensible process

A guidance document on this subject has been proposed for development through the SWRCB.

U.S. EPA's "Guidelines for Deriving Numerical Aquatic Site Specific Water Quality Criteria by Modifying National Criteria," dated 1984 (EPA-600/3-84-099) provides guidance for conducting an SSO study.

U.S. EPA's "Water Quality Standards Handbook" dated 1994 also provides general guidance in this area.

12. Are beneficial uses inappropriate? See #8 above.
13. Conduct a Use Attainability Analysis (UAA) and implement the results. When a use is proposed for dedesignation, i.e. removed or replaced with a subcategory requiring less stringent objectives, a UAA is necessary. In a case where a use is proposed to be added, a UAA is not necessary. A new use designation can be added for a water body following the normal public review process. A UAA will determine if physical, chemical, and/or biological factors affect the attainability of a designated use via a water body survey and assessment. An analysis of economic factors can also be included to determine whether substantial and widespread economic and social impacts would be caused by stringent pollution control requirements.

U.S. EPA's "Technical Support Manual: Water body Survey and Assessment for Conducting Use Attainability Analyses" dated 1983 provides guidance for conducting a UAA as does Region 9's Interim Final "Guidance for Modifying Water Quality Standards

and Protecting Effluent-Dependent Ecosystems" dated 1992. U.S. EPA's "Water Quality Standards Handbook" dated 1994 also provides general guidance in this area.

SITE SPECIFIC OBJECTIVES TASK FORCE GUIDANCE DOCUMENT OUTLINE

The purpose of this outline is to define a process for performance of site specific objective (SSO) studies and to capture the basic ingredients of SSO studies in a cookbook (step by step) format.

INTRODUCTION

- DEFINITION OF SITE SPECIFIC OBJECTIVE (SSO)**
 - SWRCB POLICY REGARDING SITE SPECIFIC OBJECTIVES**
- BASIC APPROACH TO SSO DEVELOPMENT**
 - DECISION TO DEVELOP SSO**
 - ORGANIZATIONAL STRUCTURE FOR SSO PROJECT TEAM**
 - WORK PLAN DEVELOPMENT**
 - SITE SPECIFIC STUDY APPROACH**
 - DATA INTERPRETATION**
 - ANTI-DEGRADATION**
 - ECONOMIC/CEQA EVALUATION**
 - IMPLEMENTATION OF SSO**

DECISION TO DEVELOP SSO

- EVALUATION OF AVAILABLE INFORMATION**
- PRELIMINARY STUDIES (IF NECESSARY)**
- EVALUATION OF ALTERNATIVES TO SSO**
 - USE ATTAINABILITY ANALYSIS**
 - TMDL/WLA**
 - PERMIT RELIEF OPTIONS**
- PREPARATION OF DOCUMENTATION SUPPORTING REQUEST FOR SSO STUDY**

ORGANIZATIONAL STRUCTURE FOR SSO PROJECT TEAM

AGENCIES TO BE REPRESENTED

- USEPA**
- SWRCB**
- REGIONAL BOARD**
- USFWS**
- DF&G**
- DISCHARGER(S)**
- PUBLIC INTERESTS**

MOU

- RESPONSIBILITIES OF PARTIES**
- COST SHARING PLAN**
- POLICIES AND PROCEDURES**

**CONFLICT RESOLUTION
SCHEDULE**

WORKPLAN DEVELOPMENT

FORMAT

INTRODUCTION

PURPOSE

GOALS AND OBJECTIVES

LIMITATIONS

BACKGROUND INFORMATION

APPROACH

DATA PRESENTATION AND ANALYSIS

SSO CALCULATION PROCEDURE

REPORTING

REFERENCES

PUBLIC INVOLVEMENT

SCHEDULE

SITE SPECIFIC STUDY APPROACH

AQUATIC LIFE-BASED OBJECTIVES

RECALCULATION

PER U.S. EPA WATER QUALITY STANDARDS HANDBOOK (1983)

MODIFIED WQS HANDBOOK APPROACH (ARIZONA APPROACH)

**NATIONAL CRITERION RECALCULATION (NEW YORK HARBOR
APPROACH)**

INDICATOR SPECIES APPROACH

WATER EFFECTS RATIO (WER)

SITE SPECIFIC ACUTE-TO-CHRONIC RATIO (ACR)

TOTAL RECOVERABLE VS. DISSOLVED METALS

RESIDENT SPECIES APPROACH

OTHERS...

HUMAN HEALTH-BASED OBJECTIVES

**SITE SPECIFIC BIOACCUMULATION FACTOR (MERCURY CRITERIA
DOCUMENT APPROACH)**

VERIFICATION OF DEFAULT ASSUMPTIONS

OTHERS...

WILDLIFE-BASED OBJECTIVES

SITE SPECIFIC BIOACCUMULATION FACTORS

ENDANGERED SPECIES-BASED OBJECTIVES

SEDIMENT QUALITY OBJECTIVES

INTERMITTENT DISCHARGES

DATA INTERPRETATION

STANDARD APPROACHES

AQUATIC LIFE-BASED OBJECTIVES

HUMAN HEALTH-BASED OBJECTIVES

WILDLIFE-BASED OBJECTIVES

ENDANGERED SPECIES-BASED OBJECTIVES

CONFLICT RESOLUTION

FORMATION OF EXPERT PANEL

PRESENTATION OF EVIDENCE

FINAL DETERMINATION

ANTI-DEGRADATION

ECONOMIC/CEQA EVALUATION

ATTAINABILITY ANALYSIS

ECONOMIC IMPACTS

ENVIRONMENTAL IMPACTS

SOCIAL IMPACTS

IMPLEMENTATION OF SSO

REGIONAL BOARD APPROVAL PROCESS

SWRCB/EPA APPROVAL PROCESS

DEPT OF FISH AND GAME/U.S. FISH AND WILDLIFE PROCESS

APPENDICES

GLOSSARY OF TERMS

SWRCB SSO "DECISION TREE"

EPA GUIDANCE DOCUMENTS

WATER QUALITY STANDARDS HANDBOOK (EXCERPTS)

**GUIDELINES FOR DERIVING NATIONAL WATER QUALITY CRITERIA
FOR THE PROTECTION OF AQUATIC ORGANISMS AND THEIR USES
(STEPHAN, ET. AL., 1985)**

**GUIDELINES FOR DERIVING NUMERICAL AQUATIC SITE-SPECIFIC
WATER QUALITY CRITERIA BY MODIFYING NATIONAL CRITERIA
(CARLSON, ET. AL., 1984)**

CASE STUDIES

SITE SPECIFIC OBJECTIVES TASK FORCE PROPOSAL REGARDING THE CALIFORNIA ANTI-DEGRADATION POLICY

The Site Specific Objectives Task Force recognizes that the State's anti-degradation policy (Resolution 68-16) may have a significant impact on the implementation of site specific objectives (SSOs). The primary question is, if the SSOs developed under the State Plan are higher (less restrictive) than statewide objectives, will the anti-degradation policy prevent the SSO from being adopted or implemented.

USEPA and State guidance notwithstanding, there is a need for definition of critical terms and for procedures for anti-degradation review to be developed. Also, given the implications, a review of its scope and implementation is warranted.

The Site Specific Objectives Task Force recommends that the State Board develop a guidance document to address issues related to the anti-degradation policy.

The guidance should address or define at a minimum the following issues:

1. How is ambient water quality determined?
2. What minimum number of data points taken over what minimum time frame are necessary to characterize the ambient condition?
3. How should data below analytical limits be evaluated?
4. Should the ambient water be upstream, downstream or in the case of effluent dependent streams, the effluent of the proposed discharge?
5. Does ambient groundwater quality include the vadose and saturated zones?
6. What statistical methods should be used to characterize variations in flow and chemical loading in the receiving waters and the discharge?
7. What water quality is presumed protective for each designated use?
8. For high quality waters, how is the level which exceeds use protection to be calculated?

9. Assuming that uses are protected, what minimum requirements must be met to show that allowing lower water quality is necessary to accommodate important economic or social development in the area? Should the requirement vary depending on the nature of the discharge (i.e. non-toxics, toxics, carcinogens)?
10. Is an anti-degradation review necessary when an existing discharge is removed from a receiving stream?
11. Does an increase in the mass of a discharge require an anti-degradation review even when it results in equal or improved (lower concentration) water quality?
12. Is an anti-degradation review required when a discharge is proposed to a dry wash or ephemeral stream?
13. How do you define a lowering of water quality?
14. How is anti-degradation to be applied to stormwater discharges and to storm event stream flows?
15. Can the scope of anti-degradation reviews for waters that are not "natural" or are impaired due to irreversible causes be limited to require the protection of uses only, as is presently done in Colorado?